



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

ANNUAL RECORD OF SCIENCE AND INDUSTRY FOR 1877.¹—While this year's volume is less bulky than its predecessors, it has lost none of its distinctive features as a useful summary of the progress of science in all departments, with especial reference to the wants of the specialist who must be informed as to progress in general science, as well as of the general reader who needs some handy, condensed year-book of this sort, to supplement the encyclopædia and other books of reference in his library. The work seems to be admirably classified and condensed and in all respects as useful and rather more compact, and cheaper than the previous ones.

COOK'S MANUAL OF THE APIARY.²—This manual of bee-keeping is in point of style not equal to Langstroth's or Quimby's, but still is excellent in its matter and will prove a reliable and practical guide to the beginner. The illustrations are in most cases good, in others mediocre, but still they are numerous, and unusual prominence is given to physiological and anatomical facts and theories. The index is copious and convenient.

THORELL'S STUDIES ON THE SPIDERS OF MALAYSIA.³—The first part of this series of descriptions of the Arachnid fauna of Malaysia, and of the Celebes especially, forms a volume of 294 pages, with an index, and must comprise when completed a quite full description of the spiders of Malaysia and Pupuana. The descriptions are detailed and in Latin.

RECENT BOOKS AND PAMPHLETS.—Brehm's Thierleben.¹ Band x. Heft 7-10. Leipzig, 1878. New York: B. Westermann & Co. 8vo, 40 cents a Heft.

Die europäischen Encyritiden. Von Gustav Mayer. Wien, 1878. 8vo, pp. 104.

Beiträge zur Schmetterlings-Fauna von Surinam. II. Von N. B. Möschler. Wien, 1878. 8vo, pp. 72, 3 plates. From the author.

Entomological Contributions, No. iv. By J. A. Lintner. From the Thirtieth Annual Report on the New York State Museum of Nat. History, for the year 1876. Printed in advance of the Report. Albany, June, 1878. 8vo, pp. 142.

Studi sui Ragui Malesi E. Papuani per T. Thorell. I. Genova Tipografia del R. Istituto Sordo-muti, 1877. 8vo, pp. 297. From the author.

American Club List and Sportsman's Glossary. By Charles Hallock. New York: Forest and Stream Publishing Company. 1878. 8vo, pp. 90.

Two interesting American Diptera, *Glutops singularis* and *Epibates Osten-Sack-enii*. By Edward Burges. From the Proceedings of the Boston Society of Natural History. Vol. xix. February 27. 1878. 8vo, pp. 2, with a plate. From the author.

Report on the Insecta (including Arachnida) collected by Captain Feilden and Mr. Hart between the parallels of 78° and 83° north latitude, during the Recent Arctic

¹*Annual Record of Science and Industry for 1877*. Edited by SPENCER F. BAIRD, with the assistance of Eminent Men of Science. New York, Harper & Brothers, 1878. 12mo, pp. 480.

²*Manual of the Apiary*. By A. J. COOK, Professor of Entomology in the Michigan State Agricultural College. Second edition, revised, enlarged, mostly rewritten and beautifully illustrated. Chicago: Thos. G. Newman & Son, 1878. 12mo, pp. 286.

³*Studi sui Ragui Malesi e Papuani*. Per T. THORELL. I. Genoa, 1877. 8vo, pp. 294, and index.

Expedition. By Robert McLachlan, F.R.S., F.L.S. (Extracted from the Linnæan Society's Journal—Zoölogy. Vol. xiv.) 8vo, pp. 25. From the author.

Das Protistenreich. Eine populäre Uebersicht über das Formengebiet der niedersten Lebewesen. Mit einem wissenschaftlichen Anhang: System der Protisten. Von E. Hæckel. Leipzig: Ernst Günther's Verlag, 1878. 8vo, pp. 104. Mit zahlreichen Holzschnitten.

Die europäischen Cynipidengallen mit Ausschluss der auf Eichen vorkommenden Arten. Von Dr. Gustav Mayer. (Aus dem 15. Jahresberichte der Rossauer Communal-Oberrealschule in Wien.) Wien: Alfred Nölder, k. k. Hof- und Universitäts-Buchhändler, 1876. 8vo, pp. 22, 3 plates.

The Ganoid Fishes of the British Carboniferous Formations. By Ramsay H. Traquair, M.D., etc. Part i. Palæoniscidæ 4to, pp. 1-60, plates i-vii. (Palæontographical Society, London.) Volume for 1877. From the author.

Beiträge zur Fossilen Flora Spitzbergens, gegründet auf die Sammlungen der Schwedischen Expedition vom Jahre 1872 auf 1873. Von Oswald Heer. 4to, pp. 141, plates 32. Stockholm, 1876. From the author.

Palæontographica. Beiträge zur Naturgeschichte der Vorzeit. 25te Band oder 3te folge. Erster Band 4te Lieferung. 4to, pp. 141-174, plates xix-xxii. Cassel, 1878.

On the Structure and Development of the Skull in the Urodelous Amphibia. Part i. By Wm. Kitchen Parker, F. R. S. 4to, pp. 529-597, plates 21-29 (From the Philosoph. Transactions Roy. Soc. Vol. 167, part 2.) London, 1877. From the author.

Zur Stammes-geschichte der Spongien. Von Prof. Karl A. Zittel. 4to, pp. 20. (Read on the Fiftieth Anniversary of C. Th. von Siebold's Acadëmic Doctorate.) Munich, 1878.

Studien über Fossile Spongien. Zweite Abtheilung: Lithistidæ. By Prof. Karl A. Zittel. 4to, pp. 1-90, Taf i-x. (From the Abhand. der K. bayer. Akad. d. Win. ii. Cl. xiii. Bd.) München, 1878. From the author.

Description of the Fossil Reptilia of South Africa in the Collection of the British Museum. By Richard Owen, C.B., F.R.S. 4to, Vol. i, text pp. 88, accompanied by a 4to atlas, Vol. ii, of seventy plates. From the author.

The Ancient Life-History of the Earth: a comprehensive outline of the principles and leading facts of Palæontological Science. By H. Alleyne Nicholson, M.D., etc. 12mo, pp. 407, figures 270. D. Appleton & Co., New York, 1878.

The Naturalists' Directory for 1878, containing the names of the Naturalists north of Mexico, a list of Societies, etc. Edited by S. E. Cassino. 12mo, pp. 184. Naturalists' Agency, Salem, 1878.

Ferns of Kentucky. By John Williamson. 12mo, pp. 154, and sixty plates drawn by the author. John P. Morton & Co., Louisville, Ky., 1878.

Osteologie et Myologie des Manchots on Spheniscides par M. M. Paul Gervais et E. Alix. 8vo, pp. 48, pls. xxvi, xxvii. Paris, 1878. From the authors.

Illinois State Laboratory of Natural History. Natural History of Illinois. Bulletin No. 2. 8vo, pp. 92, 1 plate. Bloomington, Illinois, 1878.

The Palæontologist. N. P. James, editor. 8vo, pp. 8, No. 1. Cincinnati, July 2, 1878.

The Law of Population. Its consequences and its bearing upon human conduct and morals. By Annie Besant. 12mo, pp. 47. New York: Asa K. Butts, 19 Dey street, 1878.

On the Influence of the Advent of a higher form of life in modifying the structure of an older and lower form. By Prof. Richard Owen, F.R.S., etc. 8vo, pp. 421-430. (From the Quart. Journ. Geolog. Soc. of London for May, 1878.) From the author.

Remarks on New Zealand Fishes. By Dr. Albert Günther, F.R.S. 8vo, pp. 469-472. (From the Ann. and Magazine of Natural History, May, 1876.) From the author.

On a Collection of Reptiles and Fishes from Duke-of-York island, New Ireland and New Britain. By Dr. Albert Günther, V.P.Z.S. (Proc. Zoöl. Soc. of London, Feb. 20, 1877, 2 plates.) From the author.

Preliminary Notes on new Fishes collected in Japan during the Expedition of H.M.S. "Challenger." By Dr. A. Günther, F.R.S. (From the Ann. and Mag. Nat. History, Nov., 1877.) 8vo, pp. 433-446. From the author.

Account of the Zoölogical Collection made during the visit of H.M.S. "Petrel" to the Galapagos islands. Communicated by Dr. Günther. (From Proc. Zoöl. Soc. London, Feb., 1877.) 8vo, pp. 64-93, 3 plates.

Notice of two large extinct Lizards, formerly inhabiting the Mascarene islands. By Dr. A. Günther, F.R.S., etc. (From the Linnæan Soc. Journ. Zoölogy, Volume xiii.) 8vo, pp. 322-327. From the author.

Notes Sur les Schistes a Melette de Froidefontaine. Par MM. Oustalet & Sauvage. (Ext. du Bull. Soc. Geol. de France. 2me Ser. t. xxvii, Janvier, 1870.) From the authors.

Proceedings of the Boston Society of Natural History. Vol. xix, part iii, May, 1877 to March, 1878. 8vo, pp. 223-334, plates 8, 9. Boston, May, 1878. From the Society.

Descriptions of new species of Invertebrate Fossils from the Carboniferous and Upper Silurian rocks of Illinois and Indiana. By C. A. White, M.D. (From Proc. Acad. Nat. Sci., Philadelphia, 1878.) From the author.

The ancient Outlet of Great Salt Lake. By A. C. Peale. (Am. Journ. Science, Vol. xv, June, 1878.) 8vo, pp. 439-444. From the author.

Descriptions of Seven New Species of Birds from the Island of St. Vincent, West Indies. By George N. Lawrence. (Ann. N. Y. Acad. Sciences, Vol. i, No. 5, 1878.) Pages 147-153. From the author.

Description of a new species of Parrot of the genus *Chrysotis*. By George N. Lawrence. (Ann. N. Y. Acad. of Sciences, Vol. i, No. 4.) Pages 125, 126. From the author.

Revista Meteorológica Mensual, Marzo, 1878. Also Boletin del Ministerio de Fomento de la Republica Mexicana, June, 1878. Mariano Bárcena, Director, Mexico, Mex.

Proceedings of the American Philosophical Society, No. 101, July 8, pp. 455, Philadelphia.

—:O:—

GENERAL NOTES.

BOTANY.

INSECTS NEEDED TO FERTILIZE UTRICULARIA AND PYXIDANTHERA.—In a short paper read at the American Association, in Buffalo, in 1876, I showed some of the neat arrangements by which a cross-fertilization of flowers was secured in several species of several genera of plants. I now present an illustration of one of the best of these. It is the common bladderwort, *Utricularia vulgaris*, which is common in stagnant ponds. Aside from the peculiarity under consideration, there are several other things about the plant of especial interest.

Fig. 1 shows an enlarged front view of the flower with the lower tip pulled down. The lower tip of the stigma is much the larger, and when touched it bends up in a few seconds close against the upper lip of the corolla just under an arch-like projection. On visiting a flower for honey, an insect, as a honey-bee, can scarcely fail to hit the larger of the two stigmas. Farther on pollen is received on the tongue or jaws of an insect. None is likely to be left on the stigmas of the same flower, for by the